

AMENDMENTS TO THE CLAIMS

1-28. (Cancelled)

29. (Currently amended) The ~~A~~ resin coating method of metal gears ~~as claimed in claim 28,~~ which is a method of applying a resin comprising a polymer alloy in which a polyphenylene phase is dispersed in a matrix phase of an aliphatic polyamide to a surface of the metal gears, the method comprising a surface pretreating step of subjecting the metal gears to a silane-coupling treatment after a shot blast treatment; a preheating step of heating the metal gears to a predetermined temperature within a range of from 40°C to a melt injection temperature of the resin and a mold for molding to a predetermined temperature within a range of from 40°C to (melt injection temperature of the resin - 50°C) and also to a temperature region lower than the temperature of the insert member; a molding step of injecting a molten resin in a state that the preheated metal gears are positioned in the preheated mold; a holding step of holding a molding in the mold; and a cooling step of taking the molding out of the mold, and gradually cooling the same to room temperature.

30. (Currently amended) The resin coating method of metal gears as claimed in ~~claim 28~~claim 29, wherein the metal gears are a metal gear for transmitting power and/or angle of rotation, or metal splines and serration, for transmitting power.

31. (Currently amended) The resin coating method as claimed in ~~claim 28~~claim 29, wherein the metal gears are at least one selected from steel, iron, copper, aluminum, titanium, or alloys containing those, or their composite members.

32. (Cancelled)

33. (Currently amended) The resin coating method as claimed in ~~claim 28~~claim 29, wherein the resin applied to the surface of the insert member has a thickness in a range of from 5 μ m to 30 mm, and can be molded in an optional thickness at each site of gear surface.

34. (Currently amended) Resin-coated metal gears which are a molding obtained by the resin coating method as claimed in ~~claim 28~~claim 29, wherein the molding is free from orientation of resin after molding, and has suppressed resin crack and resin peeling.

35. (Currently amended) Resin-coated metal gears comprising two gears constituting a pair of gears that transmit power and/or angle of rotation by contact rotating tooth portions ~~there-
of~~thereof, wherein all tooth surfaces of the two gears comprise a molding obtained by the resin coating method as claimed in ~~claim 28~~claim 29, or all tooth surfaces (tooth contact sites) of one gear comprises a molding obtained by the resin coating method as claimed in ~~claim 28~~claim 29, and another gear intermeshing with the one gear is a non-resin-coated metal gear.

36. (Currently amended) Resin-coated metal gears obtained by the resin coating method as claimed in ~~claim 28~~claim 29, wherein when a part of tooth surface is coated with a resin, tooth surface of another gear contacting and intermeshing with non-resin-coated tooth surface of the gear is coated with a resin.

37. (Currently amended) Resin-coated metal gears obtained by the resin coating method as claimed in ~~claim 28~~claim 29, having impact resistance far superior to that of a resin-made gear.

38. (Currently amended) Resin-coated metal gears obtained by the resin coating method as claimed in ~~claim 28~~claim 29, having fatigue resistance far superior to that of a resin-made gear.

39-40. (Cancelled)

41. (New) The resin coating method of metal gears as claimed in claim 29 which is a method of applying a resin comprising a polymer alloy in which a polyphenylene phase is dispersed in a matrix phase of an aliphatic polyamide to a surface of the metal gears, the method comprising a surface pretreating step of subjecting the metal gears to a silane-coupling treatment after a shot blast treatment; a preheating step of heating the metal gears to a predetermined temperature within a range of from 80°C to (melt injection temperature of the resin - 20°C) and a mold for molding to a predetermined temperature within a range of from 70°C to (melt injection temperature of the resin - 80°C) and also to a temperature region lower than the temperature of the metal gears.